Signs of a Project in Trouble

The tight schedule called for the radar-imaging satellite to be delivered in 2004 and its sister spacecraft the next year. Three years before that first deadline, government and industry officials say, it was becoming clear that the project was in trouble.

As costs escalated, Boeing cut back on testing and efforts to work several potential solutions to difficult technical problems. If a component failed, Boeing, lacking a backup approach, had to return to square one, forcing new delays.

Yet the company hesitated to report setbacks and ask for additional financing.

"When you've got a flawed program, or a flawed contract, you really have an obligation to go to the customer and tell them," Mr. Young said. "Boeing wasn't doing that."

The reason, according to an internal reconnaissance office post-mortem, was the budget cap, and the steep financial penalties for exceeding it. "The cost of an overrun was so ruinous that the strongest incentive it provided to the contractor was to prove they were on cost," the post-mortem found.

It did not help that the government ordered two major and several minor design changes that added $1 billion to cost projections. The changes, government and industry officials said, were intended to give the electro-optical satellite the flexibility to perform additional functions.

It was against this backdrop that Mr. Teets, the satellite agency's new director, formed the review group in May 2002 that recommended pressing on and seeking new financing.

The next year the government ordered up another look at the project, as part of a broader examination of failing military space programs. The study, led by Mr. Young, reported that F.I.A. was "significantly underfunded and technically flawed" and "was not executable."

By this time, the government had approved an additional $3.6 billion. Still, rather than recommending cancellation, the Young panel said the program could be salvaged with even more financing and changes in the program and schedule.

In an interview, Mr. Young said the panel genuinely thought the project could be saved. Several members, though, said the group should have called for ending the program but stopped short because of its powerful supporters in Congress and the Bush administration. Among the most influential was Representative Jane Harman, the ranking Democrat on the House Intelligence Committee, whose Southern California district includes the Boeing complex where the satellites were being assembled.

The death sentence for F.I.A. was finally written in 2005. Another review board pronounced the program deeply flawed and said propping it up would require another $5 billion—raising the ante to $18 billion—and five more years. And even with that life support, Mr. Fitzgerald recalled, the panel was not confident that Boeing could come through.

That September, the director of national intelligence, John D. Negroponte, killed the electro-optical program on the recommendation of the reconnaissance office's new director, Donald M. Kerr. Lockheed was engaged to reopen its production line and build an updated model of its old photo satellite.

Government officials say the delivery date for that model has slipped to 2009. Late last year, a Lockheed satellite carrying experimental imagery equipment failed to communicate with ground controllers after reaching orbit, rendering it useless.

Boeing calculated that its revenue losses from the cancellation would total about $1.7 billion for 2005 and 2006, less than 2 percent of forecast revenues. Having kept the radar-satellite contract, the company is expected to deliver the first one in 2008 or early 2009, at least four years behind the original schedule.

The Search for Lessons

The satellite agency and military experts are still sifting through the wreckage, looking for lessons—beyond the budget issues—that would prevent a similar meltdown in the future.

In . . . September, Mr. Kerr, who last month became principal deputy director of national intelligence, said a pivotal factor was selecting a company with no experience building imagery spy satellites, especially when contractors were being given greater responsibility for monitoring their own work. Boeing, he said, was "in a way exquisitely unprepared to exercise judgment in certain areas because it wasn't within their own experience."

The satellite office's oversight is faulted, too. Jimmie D. Hill, a former deputy director, said transferring management authority to military contractors was a morale killer for officers who worked on Air Force satellite